

## ARNOLD &amp; PORTER

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Washington, DC 20004-1208

October 28, 2002

Commissioner for Patents  
Washington, DC 20231

Attn: Delores Dillard

Re: U.S. Application No. 09/549,848  
Filed: April 14, 2000  
Title: Nucleic Acid Sequences to Proteins Involved in  
Tocopherol Synthesis  
Applicants: LASSNER *et al.*  
Atty. Docket: 16516.105


Dear Ms. Dillard:

The following documents are forwarded herewith for appropriate action by the U.S. Patent and Trademark Office (PTO):

1. a Request for Corrected Filing Receipt;
2. a copy of the Filing Receipt indicating the correction to be made; and
3. a copy of the first page of the specification.

In the event that extensions of time beyond those petitioned for herewith are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned. Applicants do not believe any fees are due in conjunction with this filing. However, if any fees under 37 C.F.R. §§ 1.16 or 1.17 are required in the present application, including any fees for extensions of time, then the Commissioner is hereby authorized to charge such fees to Arnold & Porter Deposit Account No. 50-2387 referencing matter number 16516.105. A duplicate copy of this letter is enclosed.

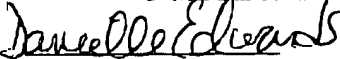
Respectfully submitted,



David R. Marsh (Reg. No. 41,408)  
Andrew S. Brenc (Reg. No. 45,534)  
Danielle M. Edwards, Law Clerk (Reg. No. 51,645)

Enclosures

I hereby certify that the foregoing letter is being facsimile transmitted to the attention of Delores Dillard via facsimile number (703) 305-9822.

  
Danielle M. EdwardsOctober 28, 2002  
Date

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

LASSNER *et al.*

Appln. No.: 09/549,848

Filed: April 14, 2000

For: Nucleic Acid Sequences to Proteins  
Involved in Tocopherol Synthesis

Art Unit: 1638

Examiner: C. Collins

Atty. Docket: 16516.105

## Request for Corrected Filing Receipt

Commissioner for Patents  
Washington, DC 20231**ATTENTION: Delores Dillard**

Dear Ms. Dillard:

Attached is a copy of the filing receipt issued by the U.S. Patent and Trademark Office for the above-referenced application for which issuance of a corrected filing receipt is respectfully requested. Please correct the title as shown on the attached copy of the filing receipt. A copy of the first page of the specification is attached in support of this request.

If any charges are deemed appropriate, Applicants hereby authorize the Commissioner to charge any fee to our Deposit Account No. 50-2387 referencing docket number 16516.105.

Respectfully submitted,



David R. Marsh (Reg. No. 41,408)

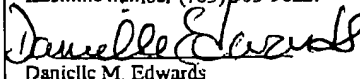
Andrew S. Brenc (Reg. No. 45,534)

Danielle M. Edwards, Law Clerk (Reg. No. 51,645)

Date: October 28, 2002

ARNOLD & PORTER  
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(202) 942-5999 facsimile

I hereby certify that the foregoing Request for Corrected Filing Receipt is being facsimile transmitted to the attention of Delores Dillard via facsimile number (703) 805-9822.

  
Danielle M. EdwardsOctober 28, 2002  
Date

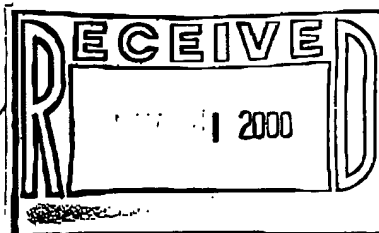


## UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS  
UNITED STATES PATENT AND TRADEMARK OFFICE  
WASHINGTON, D.C. 20231  
www.uspto.gov

APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
09/549,848	04/14/2000	1643	1234	17133/02/US	26	33	5

Calgene LLC  
1920 Fifth Street  
Davis, CA 95616



## FILING RECEIPT



\*OC000000005501304\*

Date Mailed: 10/24/2000

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the PTO processes the reply to the Notice, the PTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

## Applicant(s)

Michael Lassner, Davis, CA ;  
Beth Savidge, Davis, CA ;  
James D. Weiss, St. Louis, MO ;  
Timothy Mitsky, Maryland Heights, MO ;



## Continuing Data as Claimed by Applicant

THIS APPLN CLAIMS BENEFIT OF 60/129,899 04/15/1999  
WHICH CLAIMS BENEFIT OF 60/146,461 07/30/1999

## Foreign Applications

If Required, Foreign Filing License Granted 07/12/2000

## Title

**tocopherol**  
Nucleic acid sequences to proteins involved in isoprenoid synthesis

## Preliminary Class

435

Data entry by : BALL, ROSALIND

Team : OIPE

Date: 10/24/2000



## NUCLEIC ACID SEQUENCES TO PROTEINS INVOLVED IN TOCOPHEROL SYNTHESIS

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### INTRODUCTION

This application claims the benefit of the filing date of the provisional Application U.S. Serial Number 60/129,899, filed April 15, 1999, and the provisional Application, U.S. Serial  
10 Number 60/146,461, filed July 30, 1999.

### TECHNICAL FIELD

The present invention is directed to nucleic acid and amino acid sequences and  
constructs, and methods related thereto.

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### BACKGROUND

Isoprenoids are ubiquitous compounds found in all living organisms. Plants synthesize a  
diverse array of greater than 22,000 isoprenoids (Connolly and Hill (1992) *Dictionary of  
Terpenoids*, Chapman and Hall, New York, NY). In plants, isoprenoids play essential roles in  
20 particular cell functions such as production of sterols, contributing to eukaryotic membrane  
architecture, acyclic polyprenoids found in the side chain of ubiquinone and plastoquinone,  
growth regulators like abscisic acid, gibberellins, brassinosteroids or the photosynthetic pigments  
chlorophylls and carotenoids. Although the physiological role of other plant isoprenoids is less  
evident, like that of the vast array of secondary metabolites, some are known to play key roles  
25 mediating the adaptative responses to different environmental challenges. In spite of the  
remarkable diversity of structure and function, all isoprenoids originate from a single metabolic  
precursor, isopentenyl diphosphate (IPP) (Wright, (1961) *Annu. Rev. Biochem.* 20:525-548; and  
Spurgeon and Porter, (1981) in Biosynthesis of Isoprenoid Compounds, Porter and Spurgeon eds  
(John Wiley, New York) Vol. 1, pp1-46).



FILE COPY

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Bib Data Sheet

CONFIRMATION NO. 9155

<b>SERIAL NUMBER</b> 09/549,848	<b>FILING DATE</b> 04/14/2000 <b>RULE</b>	<b>CLASS</b> 435	<b>GROUP ART UNIT</b> 1638	<b>ATTORNEY DOCKET NO.</b> 17133/02/US
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**APPLICANTS**

Michael Lassner, Davis, CA;  
Beth Savidge, Davis, CA;  
James D. Weiss, St. Louis, MO;  
Timothy Mitsky, Maryland Heights, MO;  
MARTHA ANN POST-BEITTENMILLER, MANCHESTER, MO;

**\*\* CONTINUING DATA \*\*\*\*\***

This appln claims benefit of 60/129,899 04/15/1999  
and claims benefit of 60/146,461 07/30/1999

**\*\* FOREIGN APPLICATIONS \*\*\*\*\*****IF REQUIRED, FOREIGN FILING LICENSE GRANTED****\*\* 07/12/2000**

Foreign Priority claimed <input type="checkbox"/> yes <input type="checkbox"/> no	<b>STATE OR COUNTRY</b> CA	<b>SHEETS DRAWING</b> 26	<b>TOTAL CLAIMS</b> 33	<b>INDEPENDENT CLAIMS</b> 5
35 USC 119 (a-d) conditions met <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> Met after Allowance				
Verified and Acknowledged Examiner's Signature _____ Initials _____				

**ADDRESS**

David Marsh  
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555 12th Street, NW  
Washington, DC 20004

**TITLE**

NUCLEIC ACID SEQUENCES TO PROTEINS INVOLVED IN TOCOPHEROL SYNTHESIS

<b>FILING FEE RECEIVED</b> 1354	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:	<input type="checkbox"/> All Fees
		<input type="checkbox"/> 1.16 Fees ( Filing )
		<input type="checkbox"/> 1.17 Fees ( Processing Ext. of time )
		<input type="checkbox"/> 1.18 Fees ( Issue )
		<input type="checkbox"/> Other _____
		<input type="checkbox"/> Credit